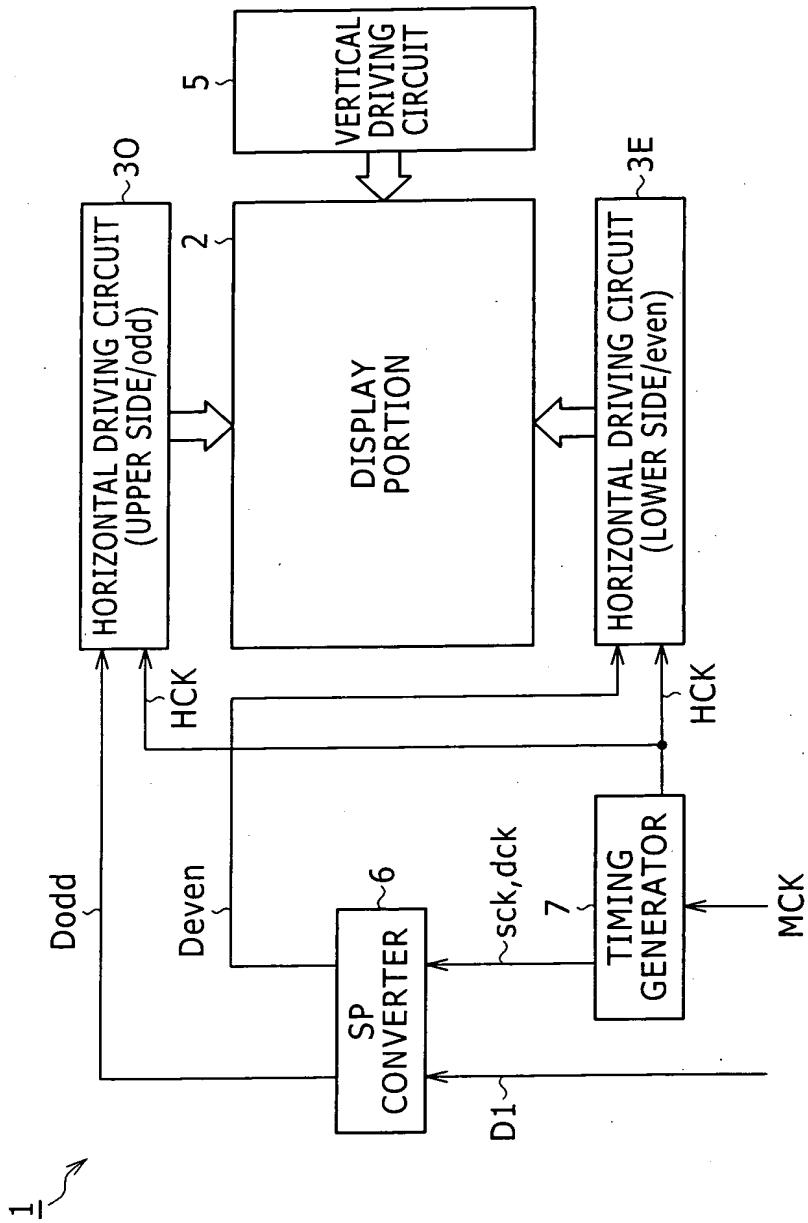


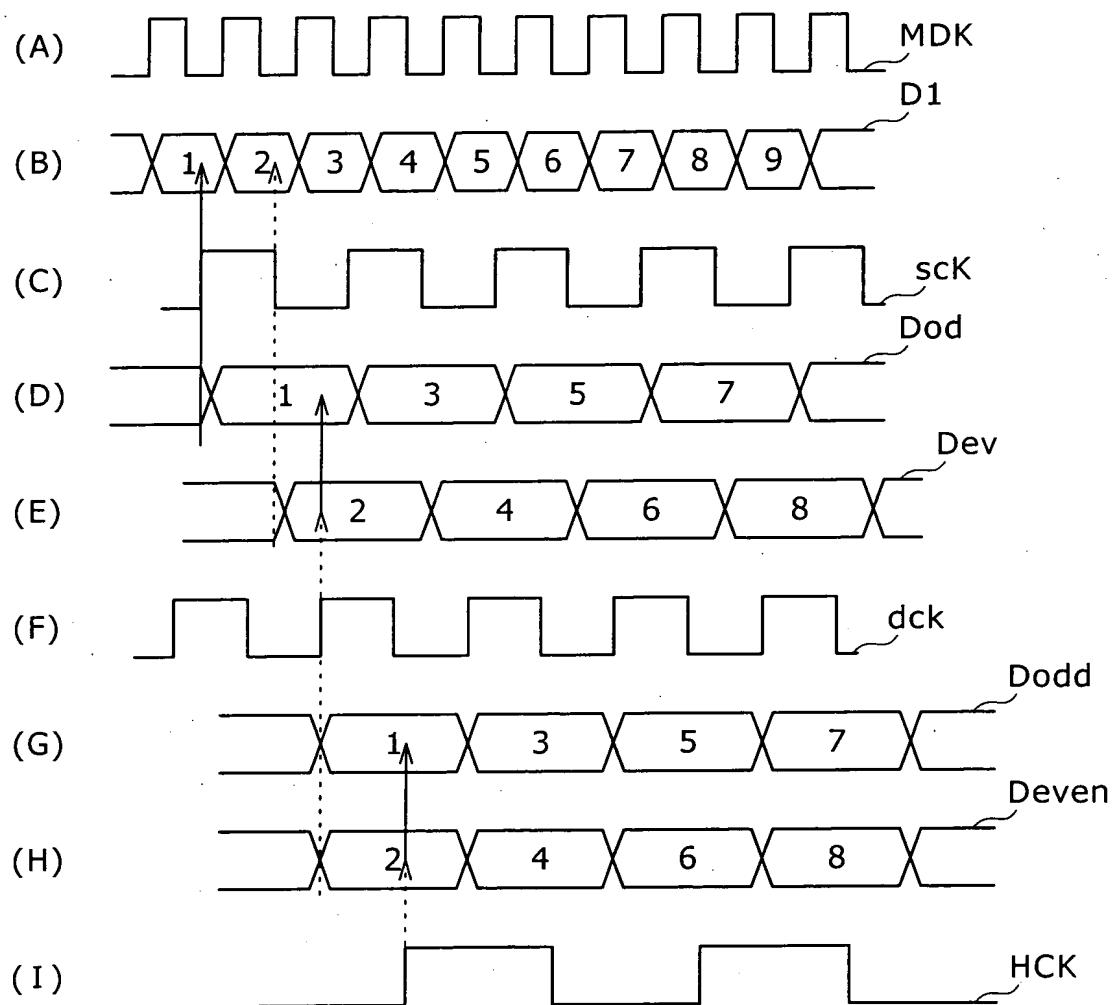
1/11

FIG. 1



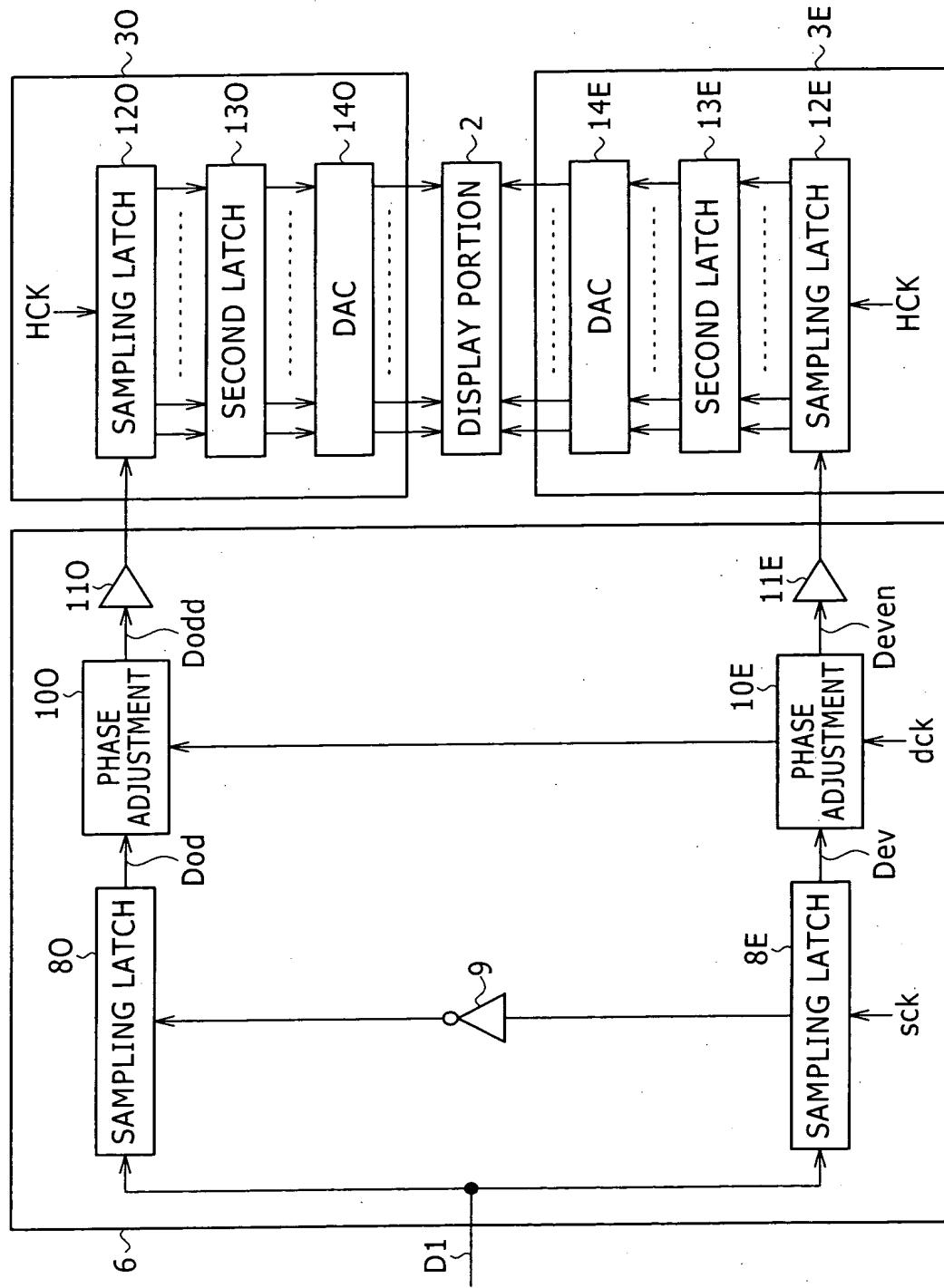
2/11

F I G . 2



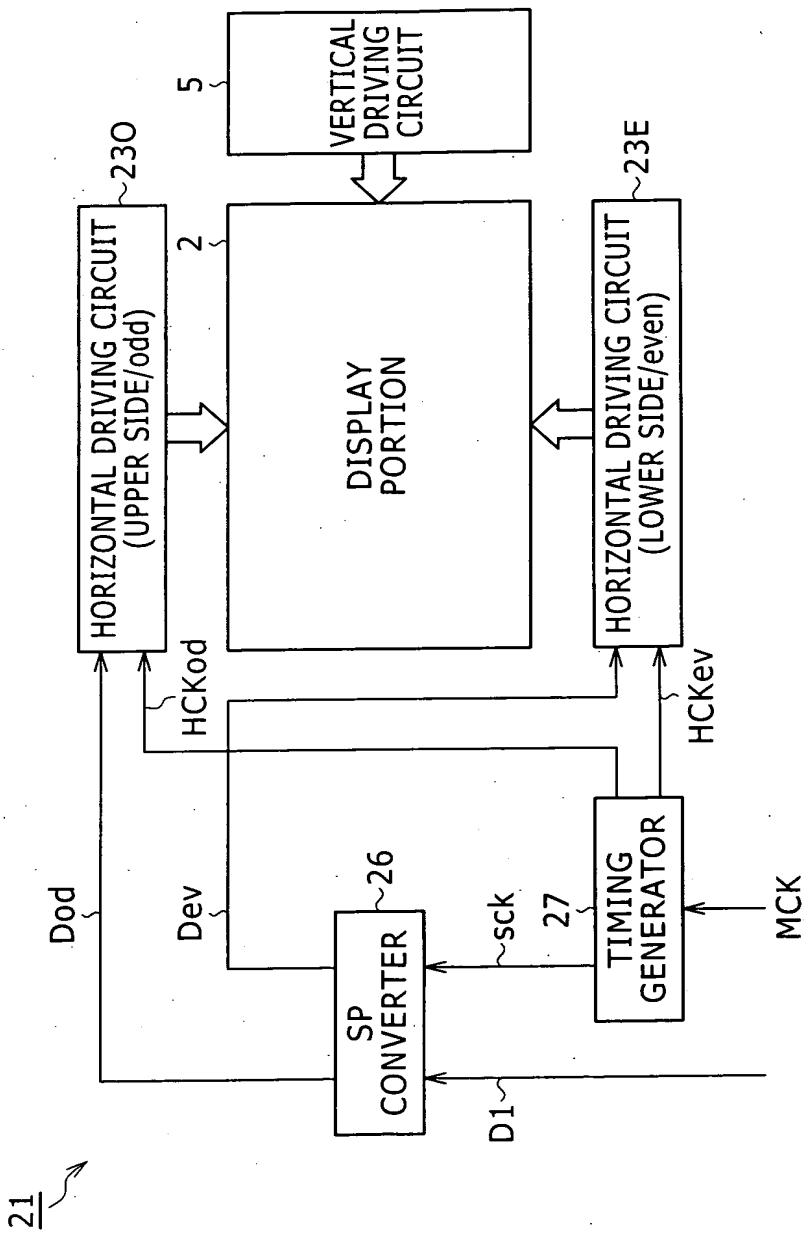
3/11

FIG . 3



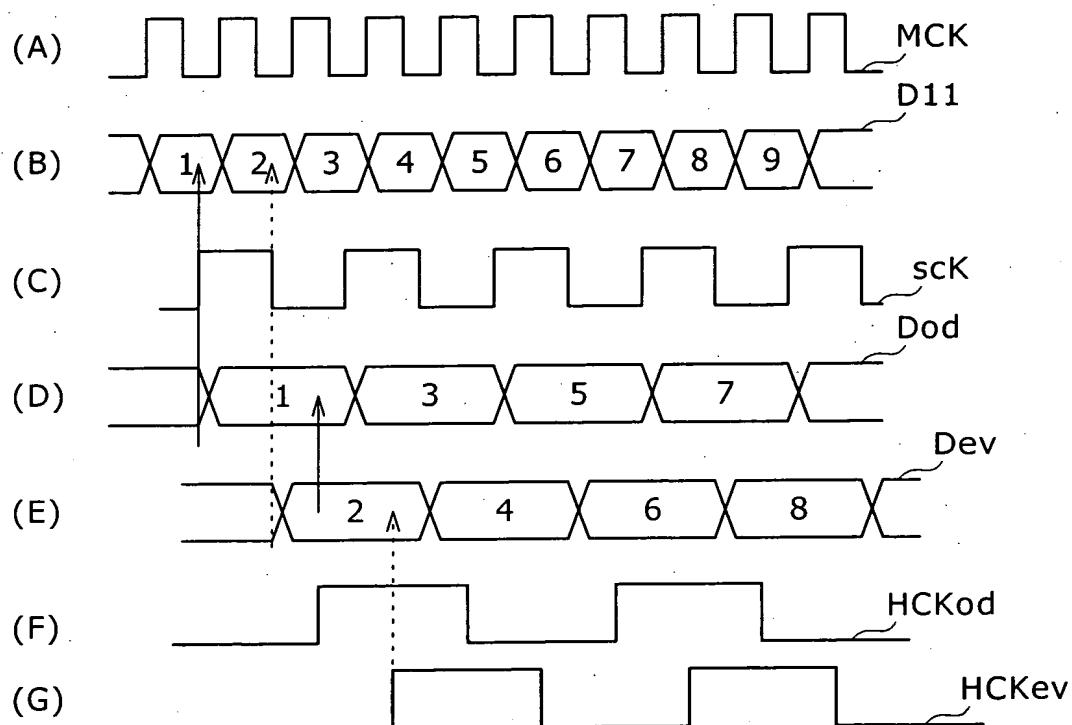
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FIG. 4



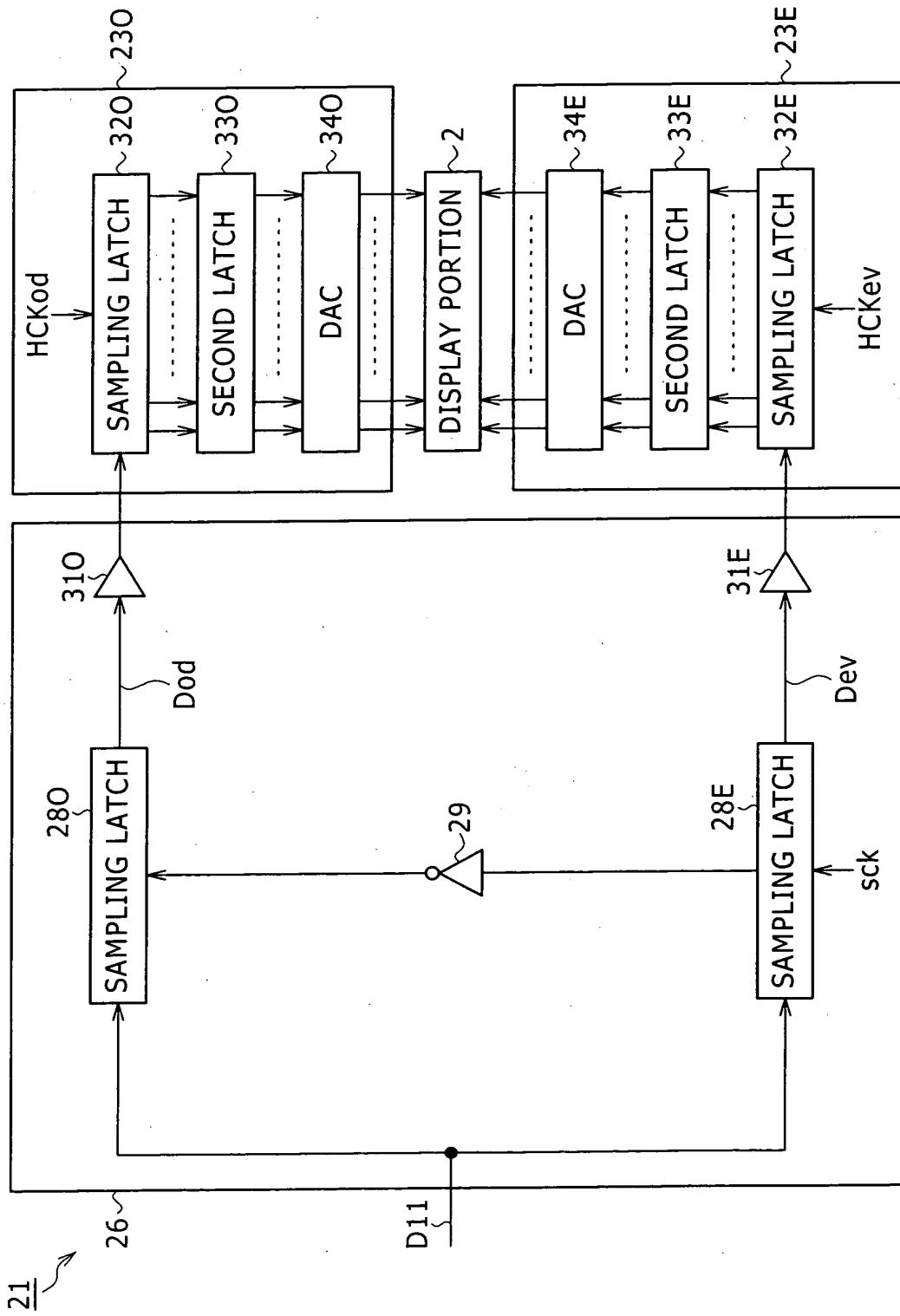
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F I G . 5



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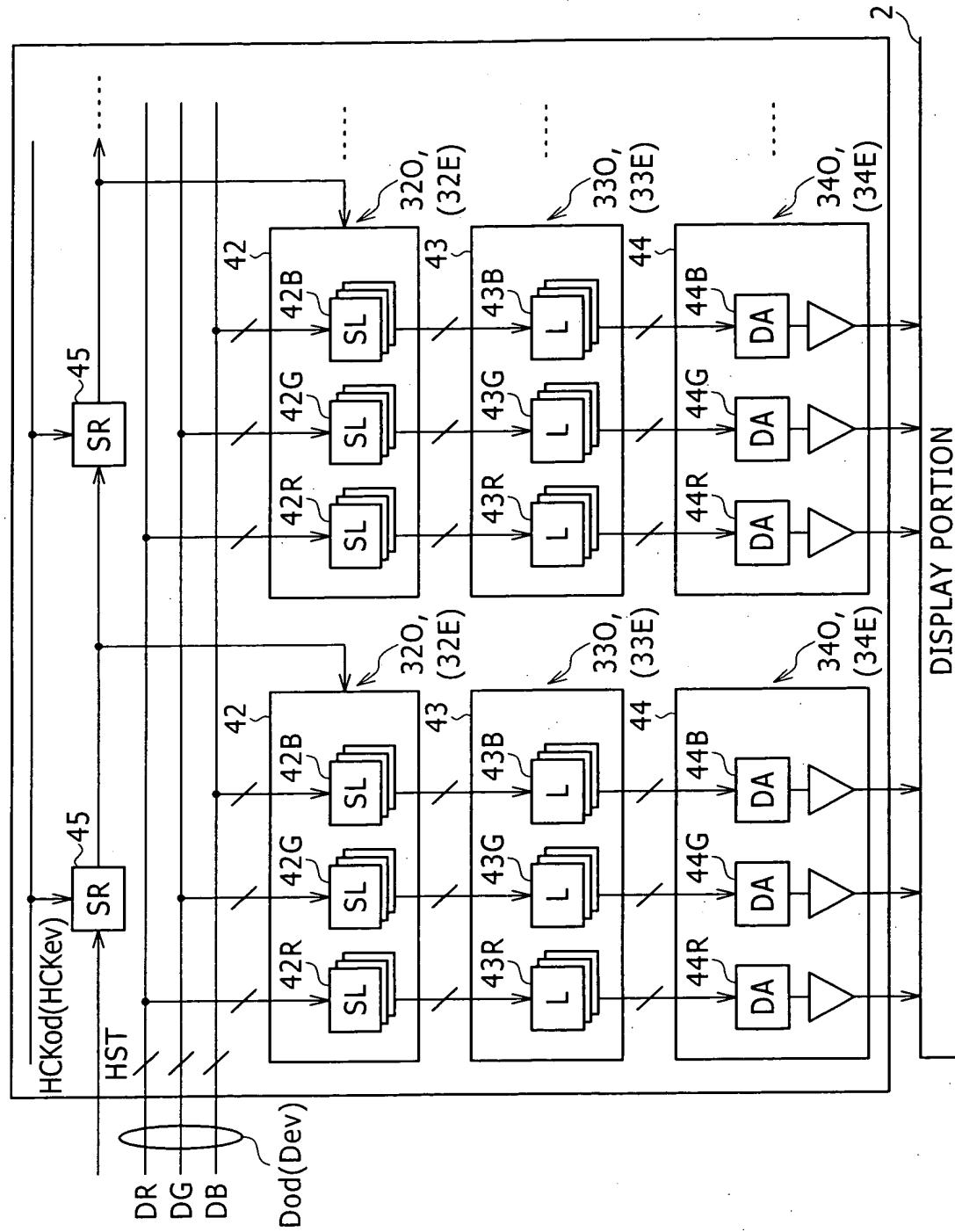
FIG. 6



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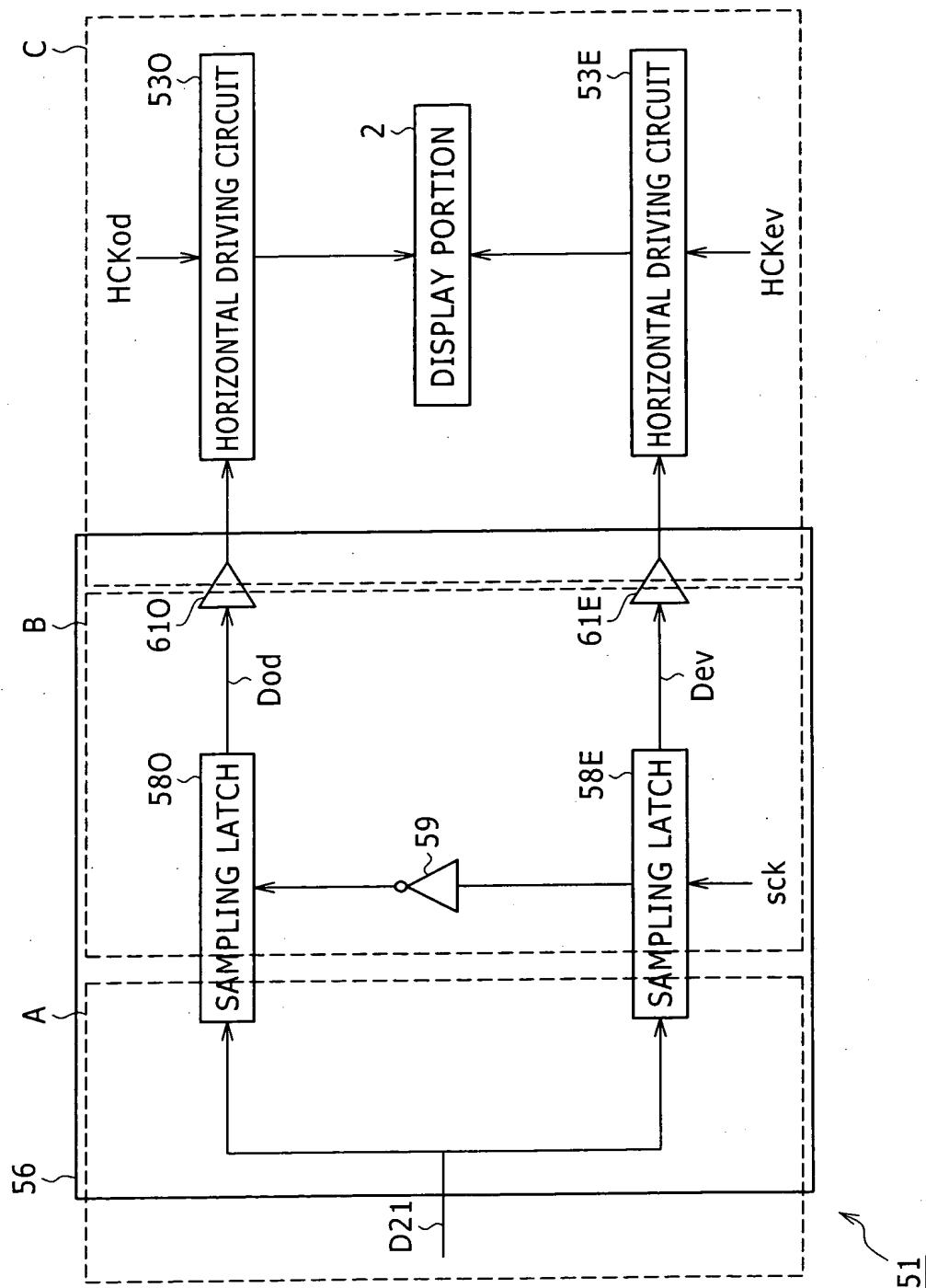
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FIG. 7



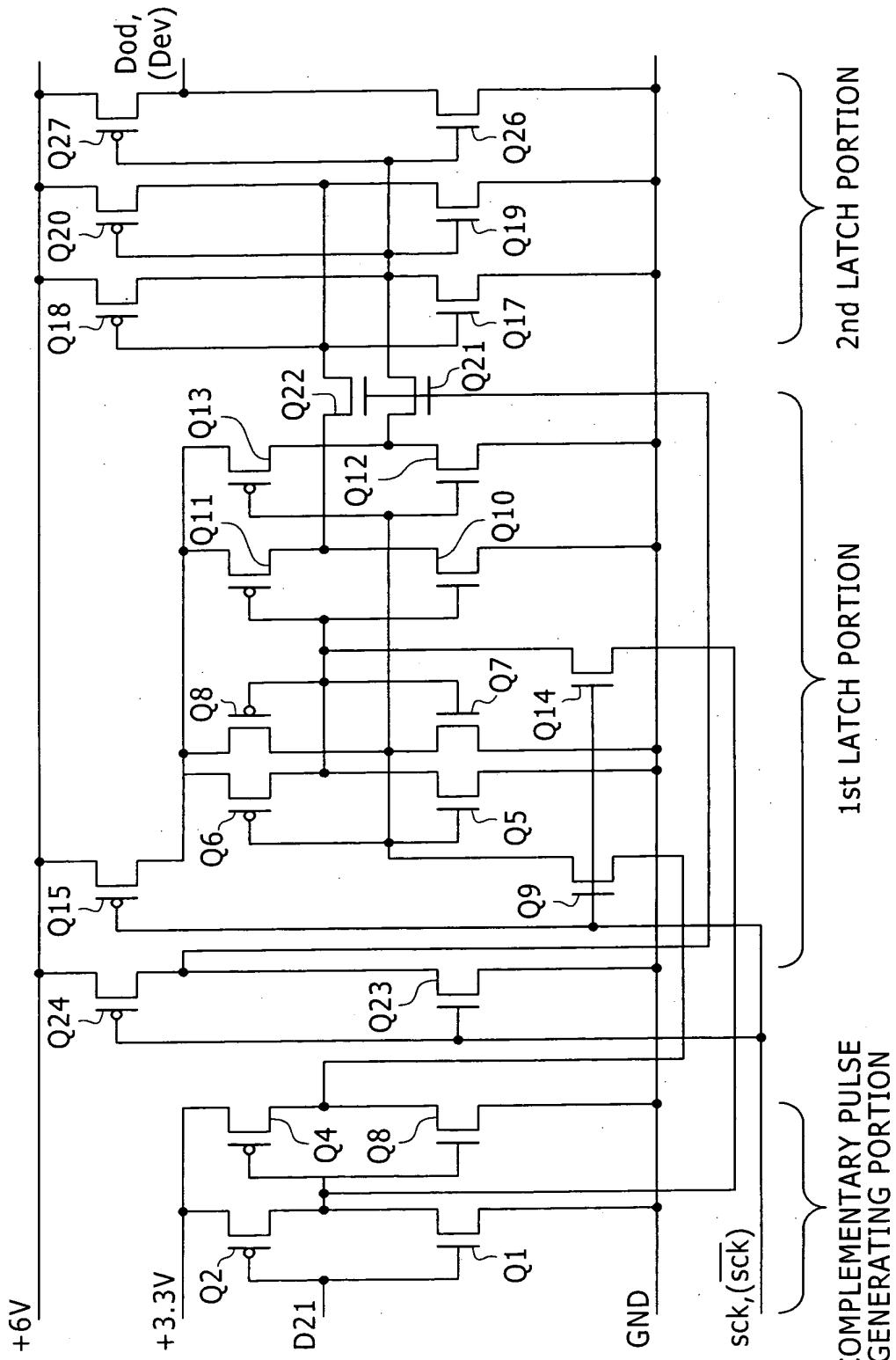
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FIG. 8



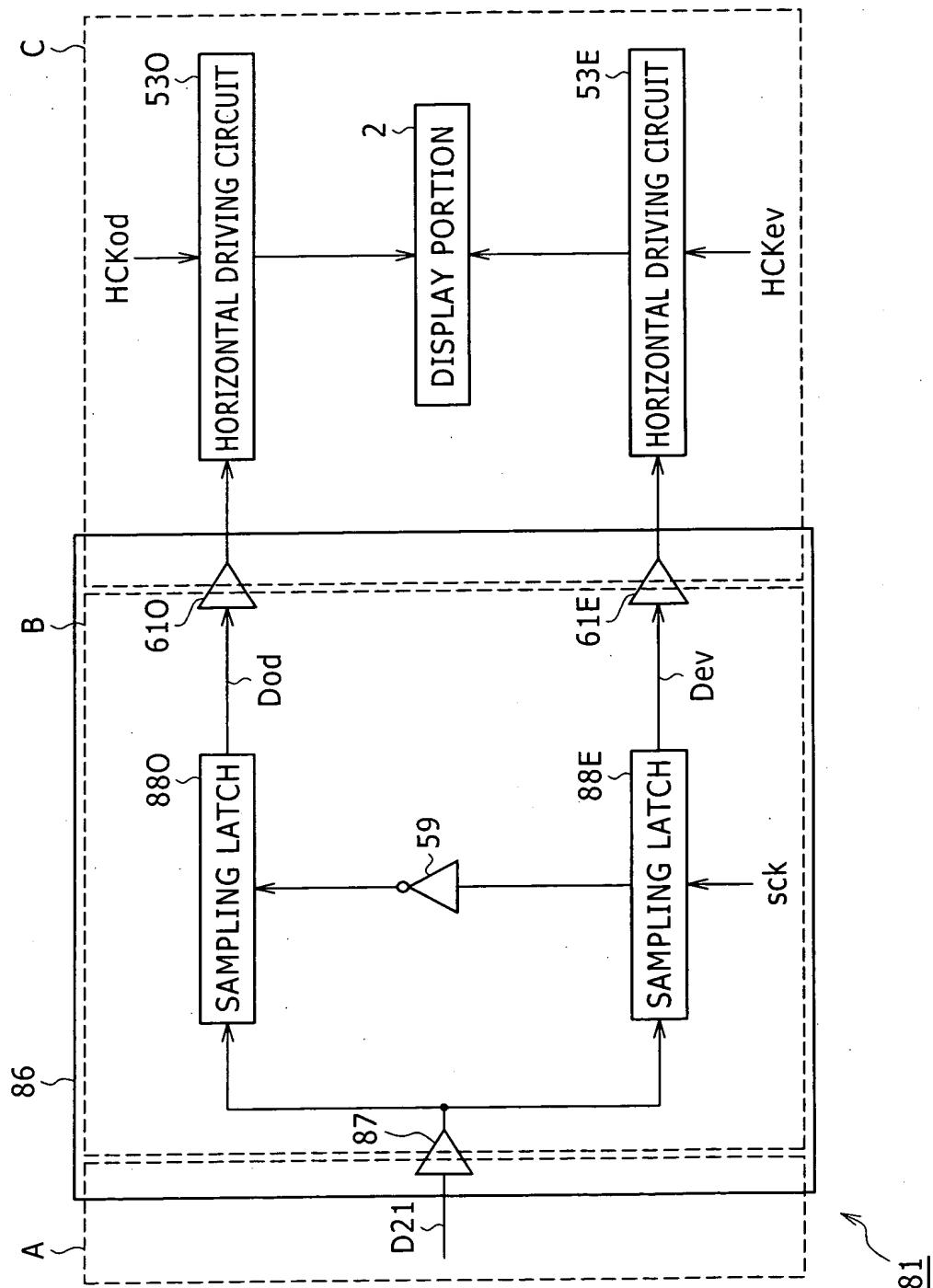
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FIG. 9



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FIG. 10



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1, 21, 51, 81 : LIQUID CRYSTAL DISPLAY APPARATUS
2 : DISPLAY PORTION
30, 3E, 230, 23E, 530, 53E : HORIZONTAL DRIVING CIRCUIT
5 : VERTICAL DRIVING CIRCUIT
6, 26, 56, 86 : SERIAL-PARALLEL CONVERTER
7, 27 : TIMING GENERATOR
80, 8E, 120, 12E, 280, 28E, 320, 32E, 42, 42R, 42G, 42B, 580, 58E,
880, 88E : SAMPLING LATCH
9, 29 : INVERTER
10O, 10E : PHASE ADJUSTING CIRCUIT
11O, 11E, 31O, 31E, 61O, 61E : DATA OUTPUTTING CIRCUIT
13O, 13E, 33O, 33E, 43, 43R, 43G, 43B : LATCH
14O, 14E, 34O, 34E, 44, 44R, 44G, 44B : DIGITAL TO ANALOG
CONVERTER
45 : SHIFT REGISTER
87 : LEVEL SHIFTING CIRCUIT
Q1-Q15, Q17-Q24, Q26, Q27 : TRANSISTOR